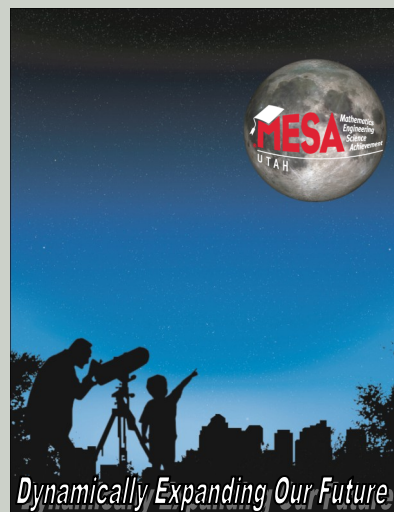


The purpose of MESA is to increase the number of under-served ethnic minority and all female students who pursue course work, advanced study, and possible careers in mathematics, engineering, and science areas.

It's all about you!

	2009-2010				
	Actual # of students in school	% of total student body	Actual # of students in MESA	% of specific group in MESA	
African Americans	2186	2.3%	196	3.2%	% of students in MESA
American Indians/Alaskan Natives	1235	1.3%	123	2.0%	
Asians	2985	3.1%	558	9.2%	
Hispanics/Latino	21502	22.2%	1753	28.8%	
Pacific Islanders/Native Hawaiians	2481	2.6%	330	5.4%	
White Females	32040	33.1%	2092	34.3%	
White Males	33856	34.9%	915	15.0%	
Other/Unknown	618	0.6%	125	2.1%	
Totals:	96903	100.00%	6092	100.00%	
					6.29%



MESA...IT'S ALL ABOUT YOU!

In this issue you'll find some great news about what's happening with our students. Thanks to all of the advisors, counselors, administrators and district focus who keep MESA on track and a successful tool in helping our students.

This year there has been a change in the organization of MESA STEP, which is the higher education component of MESA. Because of this, we must make a few changes in K-12 MESA. The first and hardest to hear is that we will not be able to send students to the national competition as we have in previous years. With the economic difficulties that every organization is facing, there simply hasn't been enough funds to do that. We certainly hope to change that for the coming year.

I am happy to report that the state MESA USA Engineering Competition Wind Energy Challenge will be held on May 14, 2010 at Lagoon. Yes that's right, at

Lagoon! That is the date for Physics Day at Lagoon. Please continue to do as you have done in the past and prepare your district team winners for the state competition. We are thankful to USU for hosting our event on the same day.

Also, we were recently notified by ATK that they will be conducting shuttle motor tests on February 11 and February 25, 2010 both days at 1:00pm at the Promontory point facility. As usual, all students are invited to come.

Keep sending us your pictures and any write ups about activities or good news going on with your MESA clubs. You guys are awesome!

Jeff Ojeda, State MESA Specialist



Mt. Ogden Jr. High School

Biodegradable plastic made using corn oil. This was an activity during one of the meetings.

GRANITE



Students with Egg Drop Vehicle. Eggs ready for the big drop.



Students working on a Super Slinger.



Students working on a Trebuchet.

Matheson Junior High Winner of the 2009 Granite School District Junior High MESA Day

On Tuesday March 17th, sixteen Granite School District junior high schools gathered at the West Valley Cultural Celebration Center, where close to four hundred students, organized into teams of 4 students each, competed for the coveted traveling MESA trophy.

The schools competed in events such as Krypto (A math contest), Package Egg Drop (Teams build a vehicle to hold two eggs, that must be dropped from 20 meters into a target. The eggs must survive to win), Super Slinger (Teams build a device on site from a box of provided materials that includes a mousetrap. The device must launch a ball at a target), Multi-Task Trebuchet Challenge, and a mystery activity (Teams participate in one of five mystery activities). For every event, except

the Mystery Activities, medals are awarded for 1st (Gold), 2nd (Silver), and 3rd (Bronze) place to each team member.

The top six schools were Matheson Jr. High School with 69 points, Kennedy Jr. High School with 42 points, Hunter Jr. High School with 36 points, Wasatch Jr. High School with 35 points, Churchill Jr. High School with 29 points, and West Lake Jr. High School with 27 points.

The MESA Club at Matheson Junior High, the overall winner, their MESA advisor Van Vuong, and MESA counselor, Al Turner, will be receiving the traveling MESA day trophy to display at their school until the 2010 competition.

Twelve junior high teams also became eligible for the State MESA Trebuchet competition to be held this year at Cottonwood High School on April 25th, for a chance to compete for a paid trip to the national championships, for the advisor and team members, in Denver, Colorado.

Kearns High School Winner of the 2009 Granite School District High School MESA Day

The 5th annual Senior High school MESA day was held on February 26, 2009. All Granite District High schools sent teams with a total of 195 students participating in the days events which included competitions in; College Display, Krypto, Multi-Task Trebuchet Challenge, Packaged Egg Drop, and a mystery activity. After a day full of competition the final score came down to a one point difference to determine the 2009 MESA day champion. The 2009 MESA

Senior High champion is Kearns High with 127 points followed closely by Granger High with 126 points, and Cottonwood High in 3rd place with 100 points. Kearns High will receive the traveling MESA trophy and will be able to proudly display it until it is time for next years competition. Ten teams will be competing at the state trebuchet competition on May 23, 2009 at Cottonwood High for a chance to represent Utah at the National competition. Thank you to all of the advisors for all of your hard work and help in making this years MESA day a success and we look forward to seeing you at state and at next years MESA day.

WEBER



Weber School District MESA Day

Weber School District held their MESA Day on March 12th at Weber State University. We were in the newly remodeled Shepard Union Building at WSU, after seeing the campus and the building, many students were heard to exclaim "I think I want to go to college here, this place is awesome." The event was very well attended and the students enjoyed themselves. The competitions included Trebuchet, Krypto, Write It Do It, Pentominoes, and Experimental Design. Awards were given, friends were made, pizza was eaten, minds were challenged...all in all, a great day.

Connie Bailey
Curriculum Secretary



TOOELE



Above: Burning peanuts to find out how much oil, or calories, they have in them.

Below: Making "Goop" for fun.

Cheryl Dearing
Clarke N. Johnsen Jr. High



Mount Logan Middle School

Mount Logan Middle School houses some 1368 students in three grades, 6-9. Our MESA Club registration has grown from 64 students in the previous year to 128 presently, with an average meeting attendance of 65 students. The advisors, Cherie Kircalli and Eric Bingham, alternate activities between mathematics and science focuses.

In October, for example, at one meeting we reviewed the language of three-dimensional objects (e.g., face, edge, vertex), after which students used Halloween gummy candy and



toothpicks to build their own three-dimensional objects.

On October 30th we did several Halloween-centered experiments. We started with dry ice, and we discussed sublimation and density. Then we used goldenrod paper that has an acid-base indicator in it which causes it to turn red when it comes in contact with a base. We talked a little about acids and bases, and students were then able to make red "blood" hand prints on the paper using ammonia. Finally we learned about sound when we made "screaming" balloons from balloons with hex nuts inside of them.

Cherie Kircalli
MESA Club Advisor

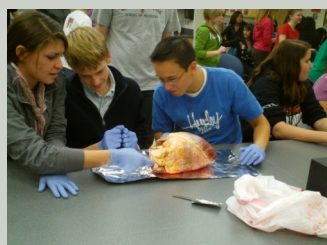


Horizonte

Students from the Horizonte MESA Club attended the Suturing and Heart Clinic provided by the Health Sciences Academy at the University of Utah. Students were taught by doctors, nurses and medical students. They were taught to stitch cuts made in pig feet. They were also taught about the anatomy of the heart and actually dissected a cow's heart. They looked at the chamber, vessels and valves.

They were all pretty enthralled with the realness of it all. There are 3 or 4 of these clinics held every year by Karen West at the U of U. All clinics are held from 9:00 am to 12:00 pm on Saturdays and vary from Medical Assisting, Pharmaceutical, and Physician's Assistant. We have been participating in these clinics for a number of years now.

Susan McFarland
MESA Club Advisor



CACHE



Above: Students Constructed hot-air balloons with 33 and 39 gallon garbage bags. They will conduct an experiment of which hot-air balloon will lift the highest.

Below: Students attended a fieldtrip to Utah State University. The aviation department took the kids to the airport for a tour followed by other activities.



**2008-2009 MESA USA
Mult-Task Trebuchet Competition**



Team #	Team	Sum 1+2*	Sum of 2	Trebuchet	Team DE	Tech Pa	Oral	Poster	Team #	Final	Final	
	Distance	Target	Strength	Mass		Score	Score	Score		Ranking	Score	
	(m)		(grams)	(kg)								
H1	Cottonwood B	11.2	64	77	5.25	18.54009	50.83333	73.91667	67.33333	Cottonwood B	4	299.5561
H2	Cottonwood D	7.2	221.5	39	3.425	14.2775	61.585	51.91667	46.56667	Cottonwood D	8	216.7754
H3	Cottonwood	16.1	76	148	3.13	39.92061	90.50833	77.58333	76.68333	Cottonwood	1	395.4015
H4	Cyprus	11.6	0	0	1.295	72.79426	68.92667	69.83333	62.73333	Cyprus	6	252.7286
H5	Granger	11.6	46	244	2.975	45.72264	74.29333	87.16667	72.91667	Granger	2	391.5541
H6	Roy	10.8	0	97	2.615	42.70025	58.49333	69.08333	63.83333	Roy	5	255.9966
H8	Weber	8.9	197	0	3.105	16.28947	91.325	90.75	92.91667	Weber	3	334.4772

Team #	Team	Sum 1+2*	Trebuchet	Team DE	Tech Pa	Oral	Poster	Final Total	Team #	Final	
	Distance	Target	Mass		Score	Score	Score	Score		Ranking	
	(m)		(Kg)								
J-1	Bonneville	8.4	144	2.88	31.86038	72.70833	56	67.5625	298.8216	J-1 Bonneville	4
J-3	Matheson	14.5	44	2.145	69.93007	55.04167	80.58333	61.795	351.9874	J-3 Matheson	2
J-4	West Lake	10.9	123.5	5.435	20.26871	86.16667	75.41667	73.3775	371.1092	J-4 West Lake	1
J-5	Roy Junior	12.12	99.5	1.665	73.79969	61.20833	67	70.375	346.4598	J-5 Roy Junior	3

STATE TREBUCHET COMPETITION

Congratulations to the **Cottonwood High School** and **West Lake Jr. High** MESA teams, from the Granite School District, for winning the State Trebuchet Competition at the senior and junior high school levels. The final results are shown on the above chart.

The competition was held at Cottonwood High School on Saturday April 25, 2009. The event could not have been pulled off without the help of judges, volunteers, and staff from Granite School District, Westminster College, Salt Lake Community College, the University of Utah, L-3 Communications, MOOG, and Hill Field. Please pass this THANK YOU on to all that helped!!!

The teams and the advisors who were are eligible attended the National MESA Competition in Denver, Colorado. Their travel, lodging and meals were paid for by Utah MESA/STEP. The teams departed on Thursday, June 25, 2009 and returned on Sunday June 28, 2009. In Denver, they competed against the state winners from Oregon, California, New Mexico, Colorado, Arizona, and Maryland.

Calendar of Events

- Fri 1/8/10 - **Intermountain Junior Science & Humanities Symposium**, U of U, Research Paper Deadline <http://web.utah.edu/newstudents/IJSHS.htm>
- Fri 1/15/10 – **MESA Scholarship Applications** due to Jeff Ojeda. See pages of Advisor/Counselor Handbook, pp. 1-3 for information or call (801) 538-7945. An electronic copy of the application at jef-frey.ojeda@schools.utah.gov.
- Tue 2/9/10—MESA PEC Meeting at Salt Lake School District
- Thur 2/25/10—Deadline for March Newsletter Entries
- Tue 4/13/10—MESA PEC Meeting at Ogden School District
- Tue 5/25/10—Deadline for June Newsletter Entries
- Sat 2/20/10 **Science Olympiad, Weber State University**- OUR FIRST **SOUTHERN** UTAH REGIONAL TOURNAMENT WILL BE HELD AT CEDAR HIGH SCHOOL. More information will be posted soon. <http://departments.weber.edu/sciencecenter/ScienceOlympiad/Olympiadpage.htm>
- Feb 2010 (*Specific date/location pending*) - **Utah Engineering Council Banquet for MESA Outstanding Teacher**,
- Feb 2010 (exact date TBA) - **JETS/TEAMS Competition, University of Utah Union Building**, 9:00 a.m. – 3:30 p.m. Annual competition. TEAMS is an annual theme-based competition giving students in grades 9-12 the opportunity to discover engineering and how they can make a difference in the world. Students work together in groups of four to eight and answer engineering questions related to the theme. The 2010 theme is “Water, Water Everywhere”. Visit www.jets.org/teams/index.cfm for more information. Contact: Deidre Schoenfeld, dschoenfeld@coe.utah.edu
- (*Specific date/location pending*) Sun-Sat Feb 2010, **National Engineering Week**, -- <http://www.eweek.org/index.shtml>
- Sat 3/6/10 - **Science Olympiad, Weber State University** - OUR FIRST **NORTHERN** UTAH REGIONAL TOURNAMENT WILL BE HELD AT DAVIS HIGH SCHOOL. More information will be posted soon
<http://departments.weber.edu/sciencecenter/ScienceOlympiad/Olympiadpage.htm>

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